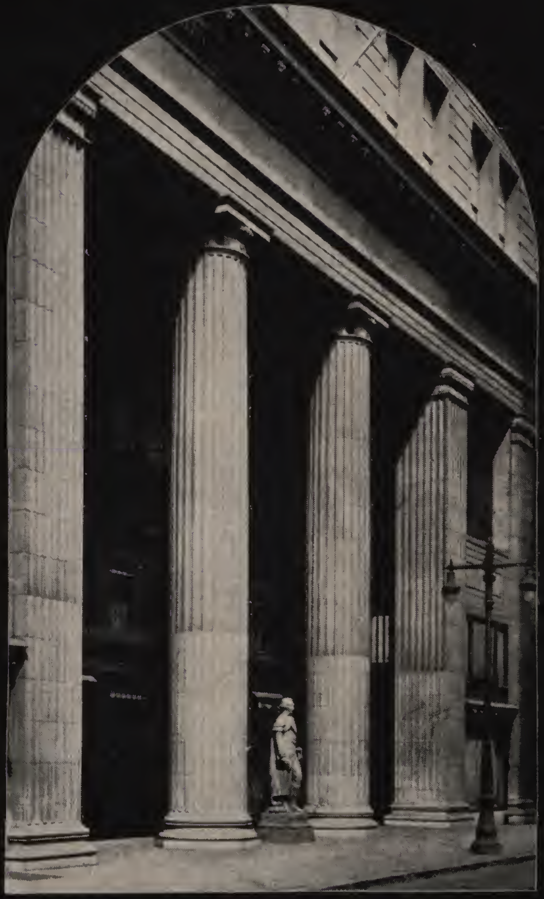
Window Lighting

JOHN WANAMAKER

Philadelphia



"The Chestnut Street Portal"
John Wanamaker Store, Philadelphia

"Pittsburgh"
Permaflector

Lighting Equipment by
Pittsburgh Reflector Company, Pittsburgh, Pa.
New York City — 145 W. 41st Street
Chicago — 549 W. Washington Blvd.

A.I.A. File No. 31f14

Photographic illustrations contained in this brochure are by
the courtesy of the John Wanamaker Store, Philadelphia

HOWARD L. KRATZ
Administrator of Art and Decoration

Edited 1928

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Window Lighting

JOHN WANAMAKER

Philadelphia

IN this brochure, through the courtesy of the John Wanamaker Store, Philadelphia, are presented illustrations of some of the finest examples of the modern art of show window decoration and display.

Appreciation of the extremely high value, in dollars and cents, of art and decorations, within the store itself, as well as in show window displays, is constantly increasing.

One of the major problems of the architect, when planning a building for sales uses, is to make it possible for his clients to profit most effectively from his window displays.

The profit-making possibilities of space given over to show windows, vastly exceeds that of any other area in the entire building.

Real estate men know this; and ofttimes two stores, having the same window space, will rent for the same, although one store may be much larger than its neighbor.

The proportion of the rental value that should be charged to show windows varies greatly, of course, depending upon the nature of the business, the building and the location. Many place the value of the window space as being from 15 to 33% of the total rental; and in some cases, as a cigar store, the sales value of the windows may be even higher.

Obviously, the most effective display will fail in its function of selling goods, if the display cannot be seen; no lights, no sales. And the more effective the lighting, the greater the value of the window and the window displays to the merchant.

It is obvious that the windows must be lighted at night; but many do not realize that frequently an even greater amount of artificial lighting is necessary during the daylight hours.

At night, because of the darkness, a small amount of lighting in a window may be adequate to attract attention to the display and make it visible.

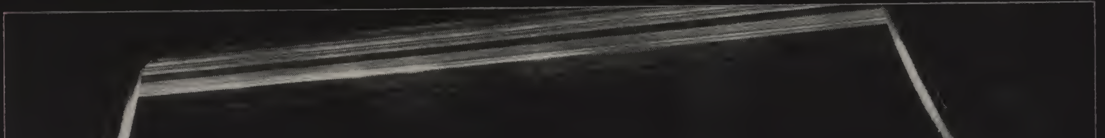
But in daytime, the strong daylight outside may make even a great amount of artificial lighting in the window seem dim by comparison.

Daytime reflections, also, frequently transform the plate glass into a mirror, obscuring or even hiding the display from the observer on the street.

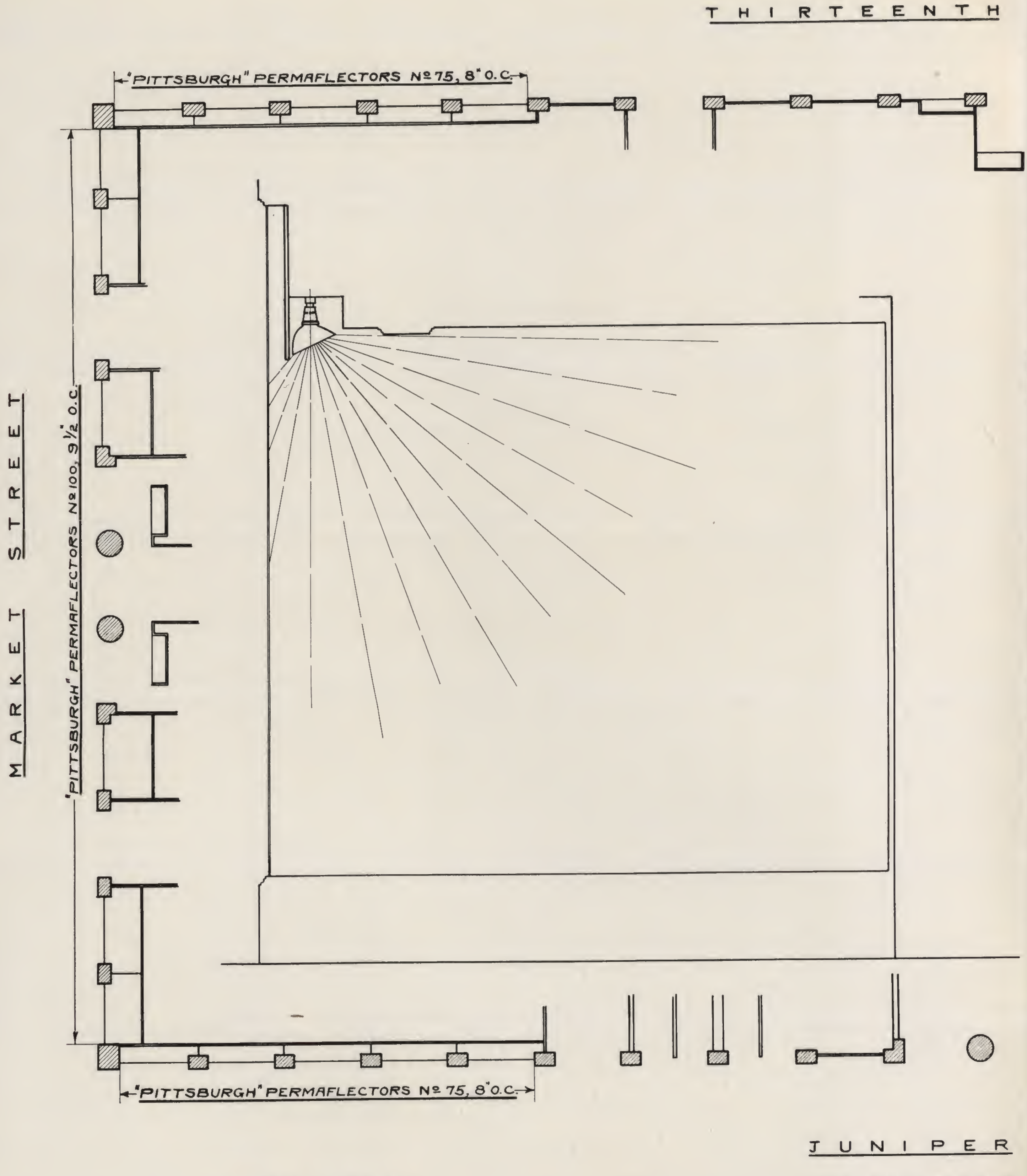
That the John Wanamaker Store fully appreciates the value of lighting is shown by the fact that in many of their windows they have provided for as high as 380 watts per running foot.

On pages 12 to 16 will be found much interesting information regarding the effect of better lighting, as proven by tests made by various engineers.

"Pittsburgh"
Permaflector

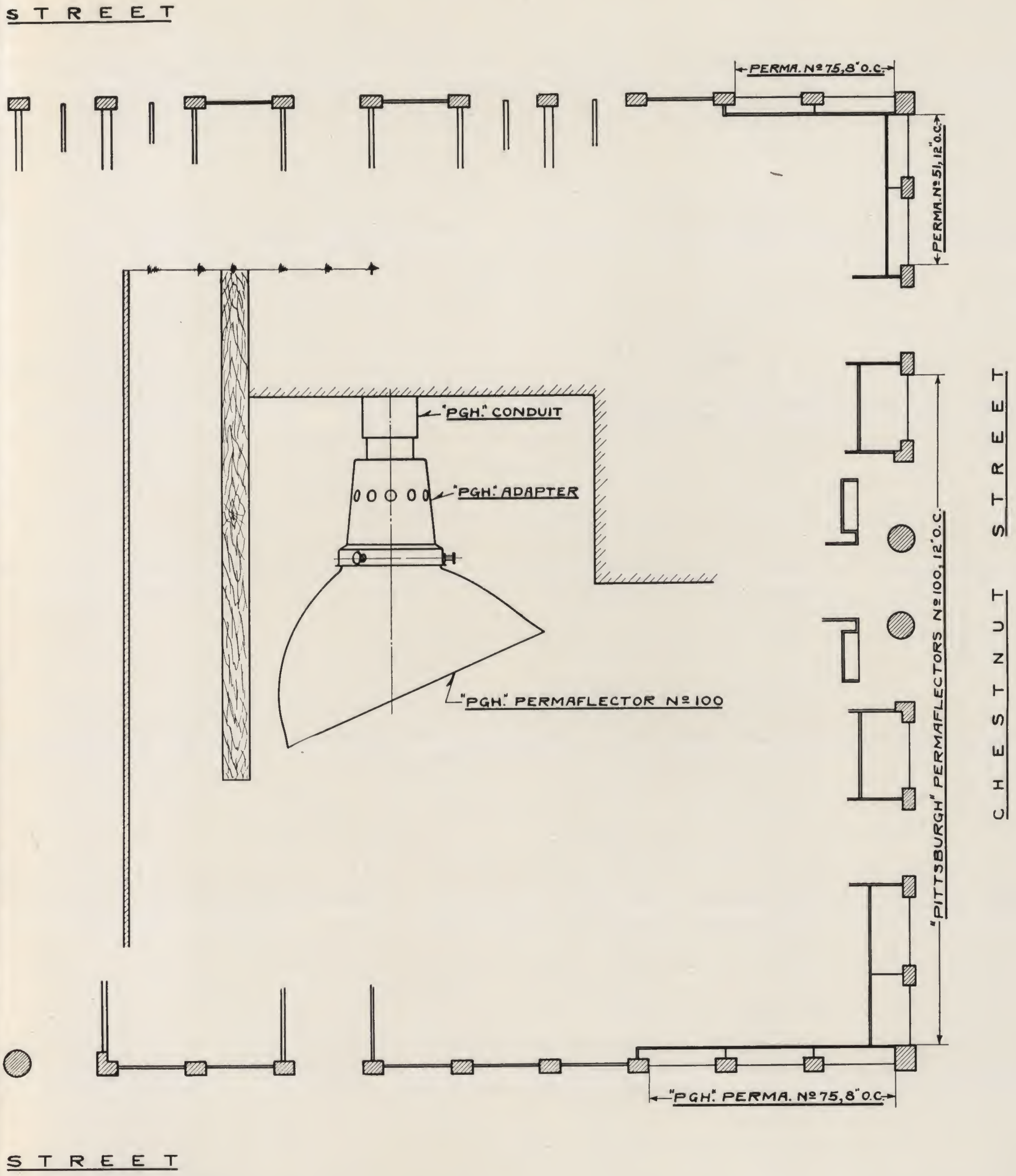


"Pittsburgh"
Permaflectors

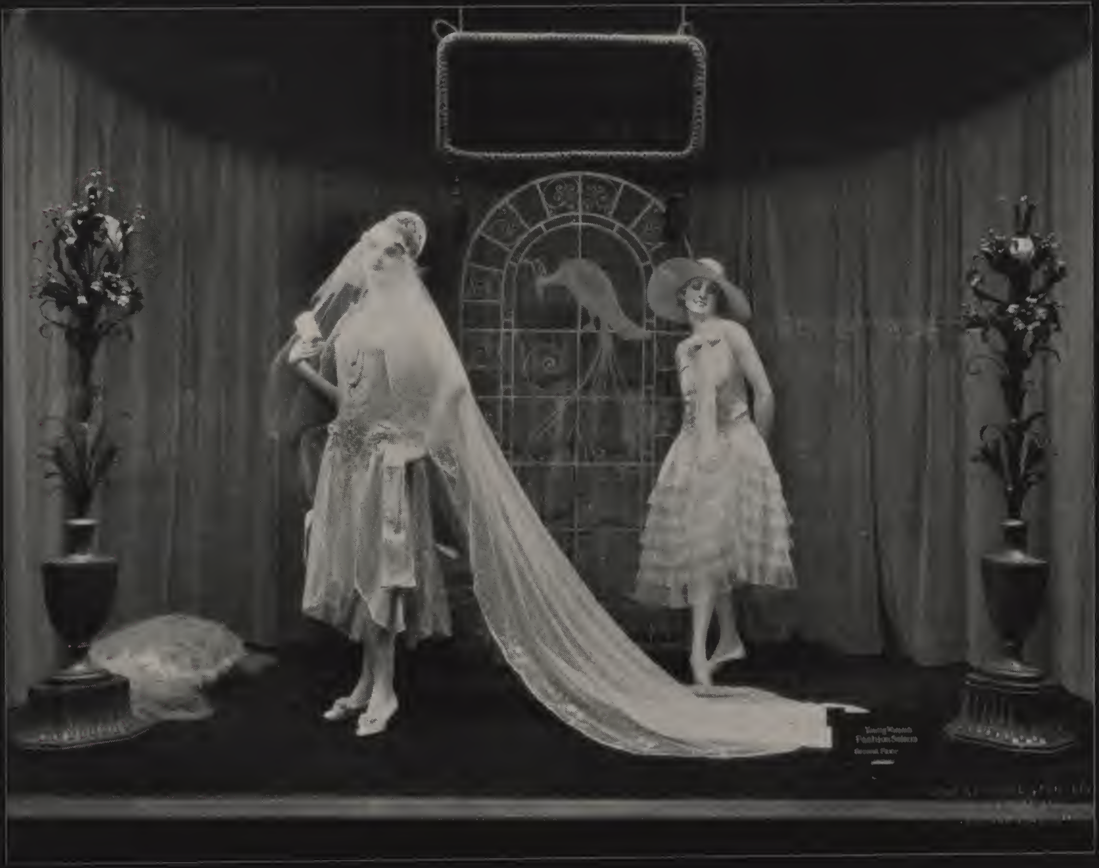

THIRTEENTH
"PITTSBURGH" PERMAFLECTORS Nº 75, 8" O.C.
MARKET STREET
"PITTSBURGH" PERMAFLECTORS Nº 100, 9½" O.C.
"PITTSBURGH" PERMAFLECTORS Nº 75, 8" O.C.
JUNIPER

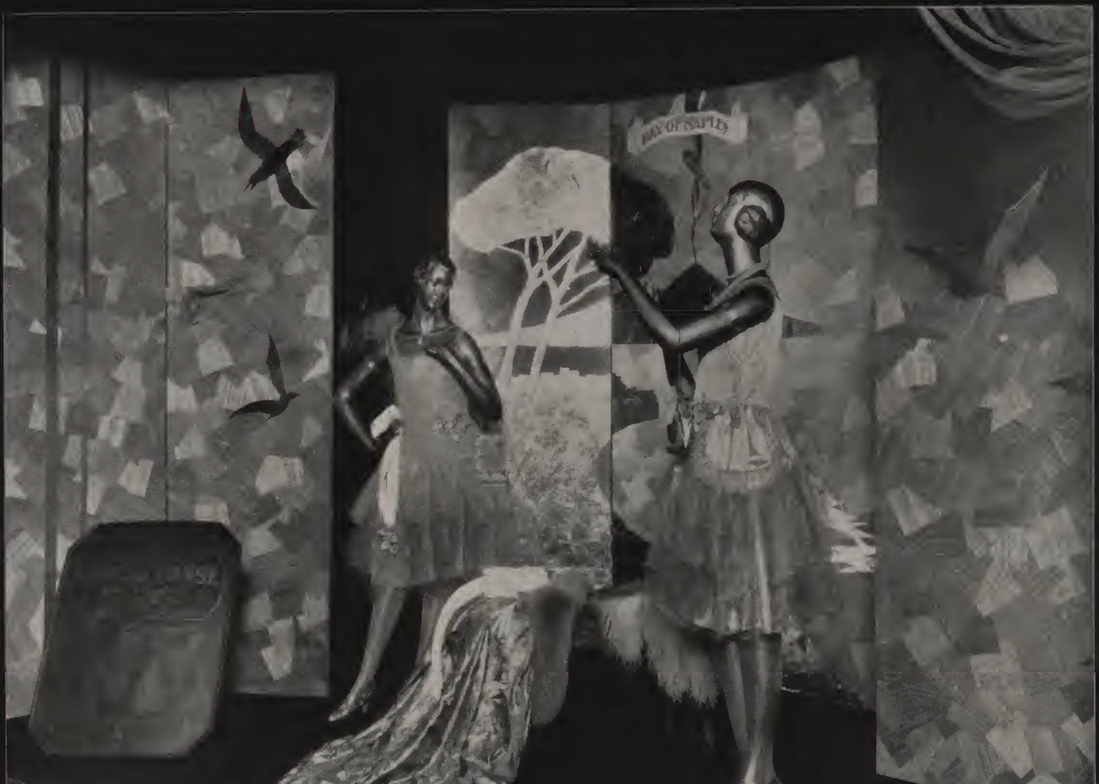
JOSEPH C. BLANC
Chief Electrician

JOHN WANAMAKER



STORE, PHILADELPHIA





"Pittsburgh"
Permaflectors

"Pittsburgh"
Permaflectors

This exclusive “4-step” Permaflector

The 10-year Record: When the Type “C” lamps came on the market in 1915, troubles began for makers and users of silvered glass reflectors. The greater heat of the new lamp caused the backing to crack, check or peel or the silvered reflecting surface to darken and lose its reflecting power.

The problem was solved by the *Pittsburgh Reflector Company* more than ten years ago thru the development of a process ever since kept secret, whereby the silver that forms the reflecting surface is sealed between glass on the one side and copper on the other.

As a result, not even 1/1000 of 1%, not even one out of 100,000 of all the hundreds of thousands of “PITTSBURGH” reflectors made since the first use of this process August 1, 1916, has ever been reported to us as having the silvered reflecting surface darken or the backing crack, check or peel.

1

Crystal Glass Base

Made in our own factory that we may control every step of the process.
Result — clear, sparkling, uniform.

2

Pure Grain Silver

Double plated — a surface that reflects light with least loss by absorption.

Process insures brightness that Lasts

The 10-year Guarantee: When we first began the use of this secret process so confident were we of the results that we felt justified in guaranteeing five years of perfect service.

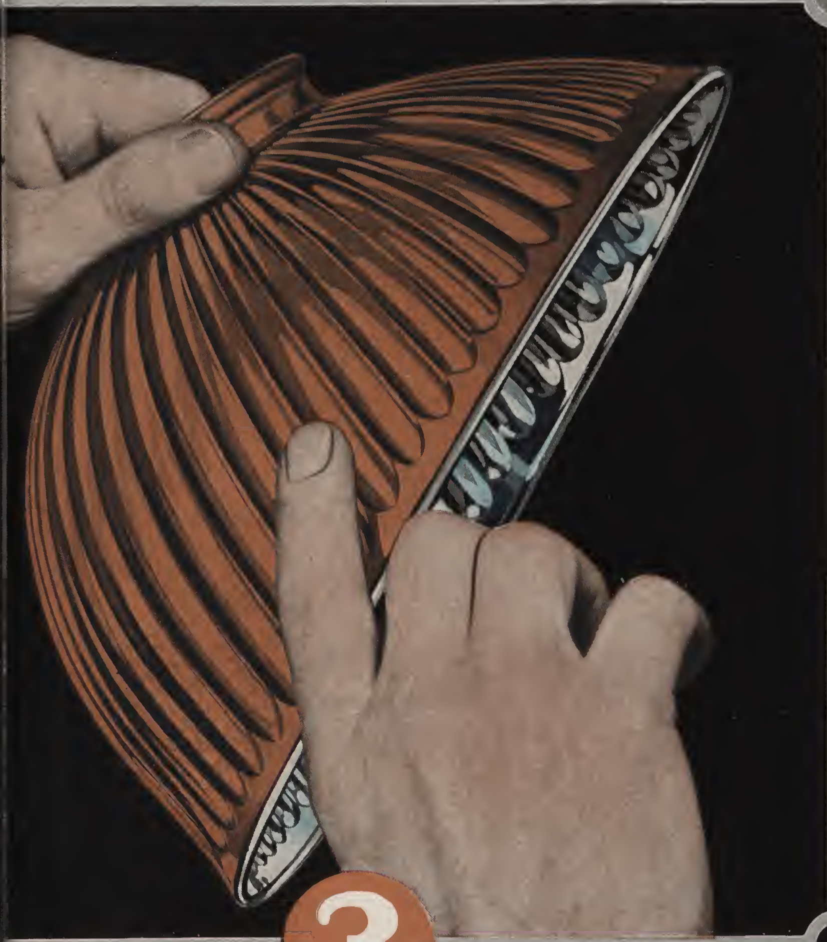
We promised five; we have already delivered eleven years — and more.

Now, therefore, the following guarantee will apply on purchases made after this date:

The Pittsburgh Reflector Company Guarantees unconditionally that the silvered reflecting surface on reflectors of its manufacture will not tarnish or otherwise darken, and that the reflector backing will not crack, check or peel during a period of ten years from date of original purchase. Should any such faults occur, replacement will be made without charge.

PITTSBURGH REFLECTOR COMPANY
By President

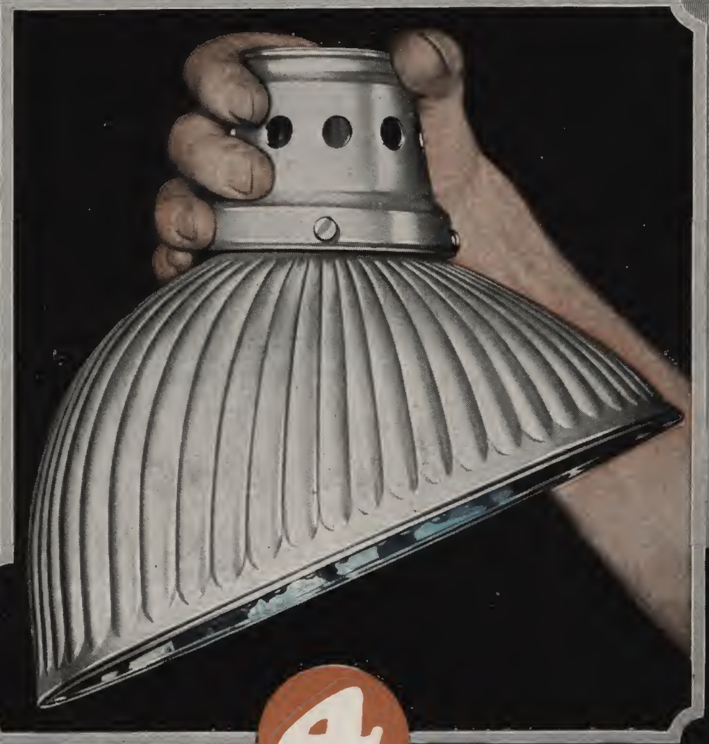
January 1, 1928



3

Air-Tight Protective Coat of Copper

Makes the silvered reflecting surface tarnish-proof.



4

Silver Color Satin Finish

"Pittsburgh"
Permaflectors

PROPELLER BLADE OF N.C.4
THE RAVEN OF THE VIKINGS
The Banner of Eric the Red, who is believed to have landed on the coast of New England. Five Hundred Years

"Pittsburgh"
Permaflectors

What Engineers Found Out About Show Windows

Many tests have been made by lighting engineers in an attempt to determine with some scientific accuracy the effect on sales caused by better lighting.

These tests have been made under widely differing conditions in different cities — on fair and stormy nights; when crowds were large, when crowds were small; on mid-week nights, on Saturdays, on holidays; every condition possible, apparently, has been covered in order that the average of results might be accurate.

The specific percentages indicative of increased business vary with each test, but it is interesting to note that in each case highly profitable increases were revealed.

Edison Lamp Works

Light switched the traffic to the Other Side of the Street.

In a publication of the Engineering Department of the Edison Lamp Works, Harrison, N. J., appears the following:

"Another interesting and significant survey was conducted in the town of Kingston, N. Y. The population numbered about 30,000, and as is typical in towns of this size, it had its main street. Due to the fact that the theatre was situated on the west side of the street most of the theatre crowd walked on that side.

"Store owners on the other side thought that it was futile to light their windows because of this condition. Three proprietors with adjacent stores on the east side were prevailed upon to allow the test to be conducted with their windows.

"The object of the experiment was to indicate the attracting power of light by drawing the pedestrians from the west to the east side of the street, if possible — simply by means of illumination.

"For the first week the old installations were maintained in the stores and an accurate record taken of the persons on the street and the number who stopped to view the display in the three windows. This count showed that 15.5 per cent of the persons attending the theatre and 35 per cent of the others walked on the east side. Of all the individuals using the east side but 7.2 per cent stopped to view the displays during the first week.

"Then an up-to-date show window lighting system, giving an intensity of 100 foot-candles on the display was installed in each of the three stores. The results obtained were remarkable. 23 per cent of the theatre crowd and 52 per cent of the others used the east side of the street and 61.5 per cent of all on this side stopped to view the windows. The third week yielded even better results than the second—32 per cent of the theatre people and 53 per cent of the others walked on the east side."

Merchants' Light & Heat Company, Indianapolis

Increased light stopped 70% more people to View the Display!

The Merchants Light & Heat Company, Indianapolis, made a show window lighting test of its own during 1925. Following are the results of this test made by their engineers, co-operating with a retail store located on one of the principal down town business streets:

"This merchant's two windows are of the arcade type, and the original installation consisted of twenty-two outlets in each window. These were fitted with obsolete reflectors spaced 15 inches apart, using 75-watt lamps and giving 7 foot-candles of illumination. Under this lighting, on the evening of June 1 and 2, an average of 1447 people passed the store each night during a three-hour period, and of this number an average of *187 persons per night, or 12.9 per cent stopped to view the display.*

"The lighting was then changed and proper reflectors were installed on 15-inch centers while 100-watt lamps were substituted for 75-watt lamps. The resulting illumination amounted to 24 foot-candles. Then on June 8 and 9 a similar test was made, during which the average number of people passing each night was 1571 *and the number stopping was 279 or 17.7 per cent.* This was 37.1 per cent more people than the original window obtained!

"The lighting was again stepped up, this time to 150-watt lamps in good reflectors and on the same 15-inch centers. The illumination now measured 38 foot-candles. On the nights of June 10 and 11 an average of 1605 people passed, of which *an average of 353 or 22 per cent came up to the windows and stopped.* This was an increase of 70.2 per cent over the original window. Think of it, — over seventy per cent!

"The surprising part of the whole story was that this audience increase of over 70 per cent cost per month only the equivalent of one 11-inch single column advertisement in the local newspapers."

General Electric Company, Ltd., of London, England

More light in show windows diverted the traffic stream from one side of the street to the other.

Mr. E. L. Randall, head of the Illuminating Engineering Department of General Electric Company, Limited, London, England, in an address before the British Association of Displaymen, said:

"It has been abundantly proved that by definite co-operation and better lighting of show windows it is possible to attract the majority of the shopping public to any particular street or section of a street.

"It was done (as most of us are aware) in Electric Avenue, Brighton, and in Brixton, with most beneficial results to the investigators; and in New Castle in Grays Street, where for some obscure psychological reason, with the effect of which we are all familiar, the general flow of foot traffic was always along the east side of the street. The borough engineer persuaded the west side shop keepers to increase their illumination by more than 100 per cent, with the result that the traffic stream was actually and completely diverted to the very material benefit of the users of more light."

Mr. Randall also quoted Mr. Fred Senwich of New Castle in Bond Street, who had told him that "he had discovered and was now making it a definite practice that whenever trade was slack, he had the show window lights switched on with the result that within fifteen or twenty minutes his store was as busy as it conveniently could be."

After quoting certain American tests, Mr. Randall continued:

"In order that I might make some slight check on the American figures, I have spent six separate five minutes in Kingsway in the evening, and counted the people who stopped to look into the various well-lit windows in that not too well-frequented thoroughfare. The average worked out to 18 persons per five minutes or 216 persons per hour.

"Again in Victoria Street, the average was 19 persons every five minutes or 228 per hour.

"I think, therefore, that you will agree that 250 for Regent Street, or the west end generally is a very conservative estimate.

"One of the larger stores in London which is able to arrange special rates for its current consumption has supplied me with the actual cost per hour. In this case, a store with 18 windows, the total expenditure to obtain 80 foot-candles in each window, is 6-8 per hour for the complete installation, that is 6½d per hour per window.

"Each window is an advertisement that reaches — let us be conservative in our estimate — 200 people per hour for 4½ pence.

"Gentlemen, if we can display our goods in such a manner, and we can definitely make 200 people per hour look at them, and talk about them to their friends, at a cost of 4½ pence, surely the opportunity is one which the smallest vendor cannot afford to overlook."

Minneapolis Electrical Development Association

Light alone sold fourteen hats and three gowns in five days.

Mr. Roy A. Palmer of National Lamp Works of General Electric Company, writing in *The Supply Buyer*, December 1923, says:

"Many tests on the use of various levels of illumination in show windows have proven conclusively that more light makes the display more attractive and increases the pulling power of the windows. The value of light as a merchandiser came to the attention of the writer recently while in Minneapolis.

"A Minneapolis department store had trimmed a window in a new building some distance from the store at the request of the Minneapolis Electrical Development Association, which was sponsoring an educational program on store lighting. The window was supplied with an ideal lighting system. An abundance of light flooded the window and by means of a flasher a variation of lighting effects was obtained. In this way the display was lighted by colored light which was alternated with high levels of illumination of unmodified light.

"The display consisted of women's gowns and millinery. The center model was singled out by a flood light bringing it out in great prominence. The first five days after this window was trimmed and opened to the view of the public, *three gowns and fourteen hats were sold from this model*. And the customers had to walk a considerable distance from this window to the store!

Light Displayed Hats Most Attractively

"One lady, who had seen the display, went into the millinery department at the store. She tried on several of the hats in stock but apparently was dissatisfied. She remarked that none of the hats were as attractive as those in the display window in the new building. When informed that she could purchase any hat in that window, she chose the hat on the flood-lighted model. The high intensity of light on that model displayed the hat to the best advantage and therefore this hat appealed to the customer more than any other hat in the window.

"Another customer became interested in the gown upon the same model. She went to the store and inquired if she could purchase that particular gown. The salesman assured her that she could and sent for the gown. It so happened that it did not fit the prospective customer, but her inquiry resulted in the sale of another gown of correct fit which closely approached the gown which was on the model in appearance and style.

Well-Lighted Displays Create Desire to Buy

"Here again, the psychological effect of light had brought about a desire to buy through bringing out the full beauty and details of the gown. Notwithstanding the fact that the customer was unable to obtain that particular gown, its attractiveness under the abundance of light made her a prospective customer and later an actual buyer. Had the hats and gowns in this window been picked from other than the flood-lighted model, the effectiveness of light in displaying goods to best advantage would not have been so striking. But in every case the customers had become attracted to that particular model. Then, too, if only two or three hats had been sold from this model during this five-day period, there may have been occasion for skeptical comment. But instead of two or three hats, *fourteen* hats were sold! Here are real examples of what light will do, and what could be more convincing than practical experience?

"These sales, pointing as they did so sharply to the value of light as a selling aid, were unlooked for on the part of those who installed the electrical equipment. The fact that the display men from the store were kept busy changing hats on the model caught their attention and in that manner the facts were secured. It would have been interesting to know how many sales other than the fourteen hats and three gowns resulted from the desire to buy which had been created by this display. If fourteen hats were sold from the window model alone, no doubt many other hats were sold directly from the stock."

Commonwealth Edison Company

Light got bigger crowds in daytime.

"In a test window installed by the Commonwealth Edison Company of Chicago, it was conclusively demonstrated that, by proper use of window lighting, the attraction power of a display can be increased 600 or 700 per cent.

"In the first window used in this test, a millinery display was installed. Between 12:00 o'clock noon and 12:45 p. m. 478 people stopped in front of the window on a bright sunshiny day, while there was an average of only 70 persons who stopped at the other five windows in the same building, which contained displays quite as attractive as the test window.

"Between 10:00 and 10:45 a. m. of the same day 150 persons stopped at the test window and only 34 at the other five.

"Between 8:00 p. m. and 8:45 p. m. of the same day 91 stopped at the test window and 18 at the others.

"The only difference in the attractiveness of the windows was the lighting system, and the five windows used for purposes of comparison employed a system quite as effective as that in use in the average large department store." — (Handbook of Window Display, William Nelson Taft, pages 315-349.)

Westinghouse Lamp Works

Lighted windows stopped six times as many as unlighted.

It is obvious, of course, that a lighted window will stop more people to view the display than the same window not lighted. Experiments were undertaken by the Westinghouse Lamp Company to determine the relative attention values of lighted compared to unlighted window displays, the results showing that the lighted windows stopped six times as many.

The following interesting figures from these tests were presented by Mr. Sam Hibben, Manager of the Illumination Bureau of Westinghouse Lamp Company before the Second Annual Convention of the Window Display Advertising Association:

Lighted	170	478	170	91
Unlighted	34	70	41	18
Lighted		424	80	75
Unlighted		48	19	15
Lighted	205	302	51	27
Unlighted	30	57	13	7
Totals—Lighted				2071
Unlighted				352

Edison Lamp Works

In 106 tests . . . . increased light pulled 73 per cent more people to the window!

Several years ago, to learn definitely the effect of more lighting on show window results, investigations were made by the engineering departments of the National Lamp Works and the Edison Lamp Works.

Show windows of four stores in two widely separated cities (Newark, N. J. and Cleveland, O.) were lighted with Mazda "C" lamps in silvered glass reflectors. The lighting was arranged in three circuits of 15, 40 and 100 "foot-candles" of illumination.

106 tests were made, on fair and stormy nights, when crowds were large, when crowds were small; on mid-week nights, on Saturdays, on holidays; every condition possible was obtained in order that the average of results might be accurate.

These tests showed that as compared to a 15 foot-candle level of illumination, 40 foot-candles stopped or slowed down 33 per cent more people to view the displays.

100 foot-candles stopped 73 per cent more people than the 15 foot-candles.

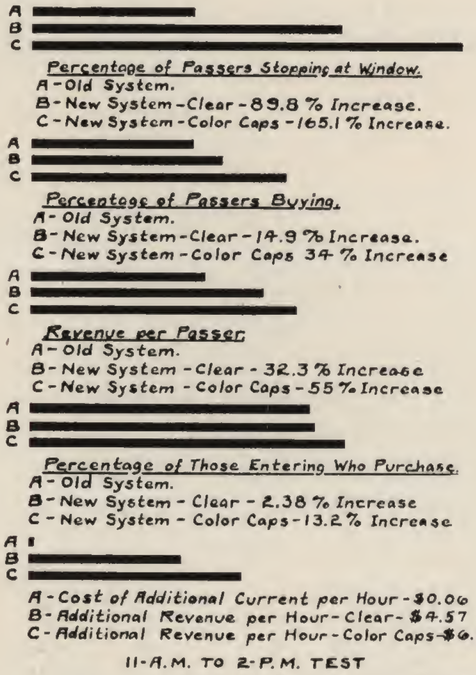
At Philadelphia

The practical value of good store and show window lighting was shown by lighting tests at the United Cigar Store Company, Tenth and Chestnut Streets, Philadelphia. These tests were reported in a paper before a meeting of the Philadelphia Section, Illuminating Engineering Society, November 22, 1926, by Arthur A. Brainerd and Frank C. Winters, Lighting Service Department, Philadelphia Electric Company.

The results of this investigation may be summarized as follows:

1. Good lighting increased the advertising value of the show window, both day and night.
2. Well designed color lighting increased the attractive power of the window for the same wattage conception.
3. Good lighting increased the percentage of passers entering the store.
4. Good lighting increased the revenue per passer.
5. Good lighting increased the percentage of those passing and entering who became cash customers.
6. Good lighting, in many cases, increased the amount of individual sales.

The magnitude of the gains from better commercial lighting may vary widely with conditions, but after considering these investigations and the many others that have been carried out, there is no doubt that better show window and store lighting pays."



Graphs by Messrs. Brainerd and Winters, Philadelphia Electric Co., showing effect of modern lighting on efficiency of show window and business during mid-day hour, with and without color toning in windows.

Engineered Window Lighting

Our experience in designing many hundreds of window lighting installations annually makes the Permaflector Engineering Department a clearing house of experience regarding practically every difficulty; and rarely have we failed to find a good solution.

Through our Engineering Department, or through our various representatives, we shall be very glad of any opportunity to aid you in solving your lighting problems through the most effective application of Permaflectors.

Factory Shipping Stocks and Sales Offices

Ample stocks are maintained at our factory at all times to insure prompt service from Pittsburgh; and in addition factory stocks are maintained for the convenience of the trade at the following sales offices:

Atlanta, Ga., Whitman & Kethley, Bona Allen Bldg.
Baltimore, Md., W. B. Masland Co., 105 E. Franklin St.
Boston, Mass., Detweiler-Bell Co., 101 Milk St.
Buffalo, N. Y., H. H. Mallon, 360 Delaware Ave.
Chicago, Ill., 549 W. Washington St.
Cincinnati, Ohio, H. C. King, 605 Mercantile Library Bldg.
Cleveland, Ohio, Handel-Davies Co., 202 Chester-Twelfth Bldg.
Dallas, Texas, Gottschall & Westcott, 2020 N. Lamar St.
Denver, Colo., Wesco Co., 7th and Lawrence Sts.
Detroit, Mich., Morey-Hotton Co., Inc., 137 E. Elizabeth St.
Indianapolis, Ind., Scott-Jaqua Co., 202 Indiana Terminal Warehouse, 31 E. Georgia St.
Kansas City, Mo., Keystone Bldg., 1320 Main St.
Los Angeles, Cal., Myers & Schwartz, 1207 E. 6th St.
Louisville, Ky., Nicholson Electrical Sales, 214 Keller Bldg.
Mexico City, Mexico, Jose Goy, Apdo 2724, D. F.
Milwaukee, Wis., A. J. Singer, 315 National Ave.
New Haven, Conn., Detweiler-Bell Co., 152 Temple St.
New York City, 145 West 41st St.
Philadelphia, Pa., A. Hopkin, Jr. Co., 235 So. 8th St.
St. Paul, Minn., C. O. Kindy, 1236 Lincoln Ave.
Salt Lake City, Utah, Raymond Ackerman, 318 Dooly Block.
San Francisco, Cal., Myers & Schwartz, 947 Brannan St.
Seattle, Wash., L. D. Morgan, 240 Securities Bldg.
St. Louis, Mo., McDonnell-Wacker Co., 2741 Washington Blvd.

Canada

Toronto 2, Ontario, Wilson Illumination Co., 186 Adelaide St., W.
Vancouver, Manitoba, Cochrane, Stephenson & Co., 707 N. West Bldg.
Winnipeg, Manitoba, Cochrane, Stephenson & Co., 265 Portage Ave.

"Pittsburgh"
Permaflectors

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